The American Architect and Building News.

Copyright, 1876, James R. Osgood & Co.

BOSTON, AUGUST 5, 1876.

CONTENTS.

Summary 249
American Architecture. — Present 250
Ceramics at Philadelphia. II. 252
The Illustrations: —
The Woodward Monument 253
Design to fill a Geometric Form 253
Plans of Kansas State Insane Asylums 253
House for Mr. E. E. Rice 253
Stores at Ridley Park 254
House for Mr. Oscar Schmidt 254
The Fine Arts at the Centennial. VI. 254
The Old South Meeting-House 254
Communications: —
Corrugated Iron Arches 255
A Word for Mechanics. II. 255
Notes and Clippings 256

The United States Senate, and by the time this paper reaches our readers probably the House also, has passed an appropriation of $200,000 towards the completion of the Washington Monument, on condition that the Monument Society shall resign their property and jurisdiction in it to the United States. It continues the Society, however, for the purpose of collecting funds to complete the structure. The order provides that the completion of it shall be put into the hands of a commission, which shall consist of the President of the United States, the Supervising Architect of the Treasury Department, the Architect of the Capitol, the Chief of Engineers of the United States Army, and the Vice-President of the Monument Society. We presume that these gentlemen, charged with finishing the monument, will have authority to decide how it shall be finished; and we trust they will see fit to make decided alterations in its design, which in its present form combines, as has been wisely said of it, among all the monuments of the earth, probably the least amount of thought with the greatest expense.

The work on the New York State Capitol is going on under the supervision of the Advisory Board; or rather, perhaps, of the two architects who are on the Board, — Messrs. Eidlitz and Richardson. A contract for the sandstone which will be used in finishing the interior has been awarded to Messrs. Sinclair and Mills of New York. We do not know what ultimate form has been given to the designs of the Board; but we are glad to infer from this contract that their idea of a substantially finished interior will prevail. The condition was added to the contract that the stone should be cut in Albany, where we may hope the work will be beyond the reach of the New York Stone-Cutters' Association. We see it reported that the stone-cutters of the Capitol ask that only New York men shall be employed upon it. To this, Lieut.-Gov. Dorsheimer refuses to agree. His course in this seems to us, from a business point of view, very reasonable, and just what a private person in charge of an important work would be likely to choose; but we notice that the New York *Commercial Advertiser* regards it as a political matter, and asks, "What do New Yorkers think of such interference with their rights?" The non-political will be disposed to ask, How far do the rights of New Yorkers in the case extend?

As the masonry of the Brooklyn bridge approaches completion, it becomes interesting to see what will be done by its opponents. Our readers will remember, perhaps, that not long ago a number of prominent ship-owners protested against its being finished, and applied for an injunction to stop work upon it, on the ground that the State and Federal authorities that had authorized the building of the bridge had not the right to empower any one to obstruct the navigation of the East River, which was really an arm of the sea. The clear height of the bridge above tide-water, one hundred and thirty-five feet, is not enough to allow vessels with high masts to pass without sending down their upper masts; and even a proposition that vessels should be indemnified by the bridge corporation, for the delay and trouble of dismantling, was not enough to satisfy the shippers. We will not venture to meddle with the legal merits of the case; but the sympathy of most people will be with the million or so of people in New York and Brooklyn who are interested in the daily use of the bridge, and who, by its present design, have already one hundred and thirty-five feet to climb, more than with the comparatively very small number of ship owners and masters who will be put to inconvenience by it. The discussions last spring, by the way, developed some rather striking differences of opinion among authorities, as to the cost of sending down the topmasts; some insisting that it would be as much as five hundred dollars for each vessel each time, and others setting it as low as five shillings.

At our day of writing, the towers are finished, and the anchorages essentially done. It is expected that the raising of the superstructure will be begun in a few days, if it is not interfered with by the courts. It is proposed first to stretch a three-quarter-inch endless rope of steel wire from the New York anchorage across both towers to the Brooklyn anchorage and back, running it over pulleys. This is to be used in putting up a temporary bridge for the workmen, which will consist of two two-and-a-half-inch steel-wire ropes stretched two hundred feet above the water, carrying a footway of strips of oak plank, and hand-ropes three feet above it; the whole secured by guys. From this five cross-bridges or cradles will be carried out transversely, to reach the work at different points of the spans, and supported by three other longitudinal ropes. All the five longitudinal ropes are to become part of the permanent structure. The bridge, it will be remembered, is to be a suspension-bridge, carried on the two piers built a short distance from the New York and Brooklyn shores, which are already such conspicuous landmarks in the harbor. The shore ends of the cables (which are four), from the piers to the anchorages, are to be chains made of links of three-by-nine-inch bar iron and fifteen feet long, eight and ten abreast. The cables of the main span will be of steel wire, No. 7 gauge, each of nineteen strands, with three hundred and thirty wires in a strand. The engineer in charge estimates that it will yet take three or four years to finish the work.

Mr. John Henry Parker has been delivering lectures in the rooms of the Royal Institute of British Architects, on the Ruins of Ancient Rome, in which he gave account of some of the latest examinations into the archæology of Rome. Late excavations in the Colosseum showed clearly, he said, that it was by no means an undertaking of the Flavian emperors, as has been assumed in the belief to which it owes the name of the Flavian Amphitheatre. A brick theatre (or probably an amphitheatre) already existed; and the Flavians merely surrounded it with a double corridor and a continuous stone façade. Vertical grooves are found in the walls of the substructure, which are thought to indicate the position of lifts by which the wild beasts were raised to the level of the arena, under the podium of the benches. The earlier walls of tufa, on which the brickwork of Nero and Vespasian rests, are believed to be the work of Scaurus, the step-son of Sylla, called by Pliny the "insane works," on account of their costliness. A wide canal runs down the centre of the

building, connected with two lateral channels which furnished it with water for the *naumachiæ*. At present, these substructures are ten feet under water, to remove which a drain is to be built to the Tiber. Old travellers would hardly recognize the Forum now. Its level is greatly lowered by excavation, exposing the foundations of the temples and of the Julian Basilica, the Cloaca Maxima, and many formerly unsuspected remains. The lowering of the Via Sacra exhibits the whole order of the Temple of Antoninus and Faustina, displaying its monolithic columns of Cipellino marble, forty-six feet high, and the steps on which it stands, mentioned by Palladio, but not seen in our day.

The Philadelphia *Press* lately described a singular piece of wood-carving, which has been brought to Philadelphia by Signor Facchini. The form and arrangement of the work are not very clearly indicated in the account of the *Press*; but it would seem to be a group of small sculptured figures and objects arranged in a somewhat pyramidal mass, about four feet wide, and as many high. The *Press* calls it four feet square, but one of the appended certificates speaks of it as a semicircular carving. It is of cedar-wood, assumed to be from Lebanon, and comprises, first, a series of subjects from the Mosaic record, extending from the creation to the occupation of Canaan, including a representation of Chaos, the Garden of Eden, the Temptation, the Deluge, figures of Moses, Aaron, and Joshua. There are also, from the life of Christ, the Nativity, and the Adoration of the Magi; and near them is St. Peter with keys and net. In the centre are subjects from the Apocalypse; and the whole is surmounted by the Crucifixion. This carving has been for a long time in the hands of the Casanova family, who have recently been interested to have it examined by a number of archæologists. Certificates accompany the relic, — one from a number of Roman experts, noted archæologists and others, which attests its authenticity, and states it to be an early Greco-Byzantine work; another from a number of *savants* at Bologna, which more definitely asserts it to be a Byzantine work of the first part of the tenth century. The Cavaliere Pancaldi, a Bolognese archæologist, inclines to consider it a symbolism of the secrets of the order of the Guadente (?), of which the earliest Casanova to whom it can be traced was apparently a member. The theories of certain American visitors are also recorded, some of whom see in it a representation of Masonic symbols, and others a "poor man's Bible." There is practically no limit, so far as we know, to the antiquity to which the masons are ready to trace their relics and observances; but we doubt if any order of Guadente dates back to near the period to which the Bolognese certificate relegates Signor Facchini's heirloom.

A rather singular case in building-law, which came lately before a magistrate in London, is recorded in the *Architect*. Some dwelling-houses belonging to the South-western Railway Company were declared by the District Surveyor to be unsafe; and the Metropolitan Board of Works notified the company that under the Metropolitan Building-Act they must be taken down, or made secure. The company refused to comply, alleging that the buildings were not unsafe, and that, if they were, they were not under control of the Building-Act, since the act which authorized the company to acquire this property secured it to them free from all public and private rights. The magistrate decided that, according to the testimony given, the buildings were undoubtedly "in a dangerous state," within the meaning of the act: on the point of law he ruled that the rights waived by the public were simply rights of way, and that the houses were not exempted from the control of the Building-Act. The company declared their intention of appealing from the decision of the magistrate. The case illustrates strikingly the danger of inconsiderate grants of privilege to corporations. It would be curious to see what means of protection would be left the public if the decision of the magistrate should not be sustained; nothing but damages, we suppose. It is proverbial that a coach and six may be driven through an Act of Parliament; but when a building "in a dangerous state" stands in the way we should think it was better not to drive.

Although the *Builder* in speaking of the sanitary exhibition at Brussels says that "exhibitions are the opportunities of empirics," it also says that "there is hardly an invention of recent times that is not more or less illustrated in an exemplary manner;" and, elsewhere, "they have made a display to which the epithet 'noble' may, without the slightest reserve on the score of hyperbole, be applied." Under the caption "Proportion in the Fine Arts," Mr. Cave Thomas's theories on proportion are discussed. Four pages are given up to descriptions of the "Castles of Brougham and Brough." The first of a series of bills for improving the dwellings of the poor, as presented by Lord Shaftesbury, affords a text for a long article on this inexhaustible subject. In the *Architect*, Prof. Kerr's second paper on the "Renewal of the Study of Greek Architecture" treats only of mouldings. "My House in London" is another of those tiresome accounts of individual experience, which will find but few readers, except those who propose adopting a precisely similar course. In this number are illustrated the first three compartments (the others are to follow) of Mantegna's so-called cartoon of the "Triumph of Julius Cæsar," accompanied by notices of the artist from Goethe, Kugler, and Waagen. "Injuries to Workmen" is a brief abstract of the evidence given before a committee of the House of Commons, by the Parliamentary Secretary and Agent to the Trades Unions of Great Britain, as to the liabilities of employers for injuries received by their workmen. The editorial of the *Building News* takes up the "Report on the Ventilation of the Capitol of the United States," rather more at length than we had space for in our last week's issue. Four more pages of the details of Mr. Waterhouse's Manchester Town-Hall are given; and with them two country-houses, one in the style of Queen Anne, the other designed in a mixed Gothic of different dates. The most interesting designs in the recent issues of the *Intime Club* are the twenty-four-hour sketches made by the aspirants for the *Grand Prix de Rome*, as preliminaries to the final selection of competitors. The subject of the sketch was a veterinary school for three hundred pupils. The façade of a theatre shows how entirely the Paris Opera-House is accepted as a type. A little Husbandman's House by Mr. Bigelow is one of the few designs by Americans at the École des Beaux Arts which have ever appeared in this publication.

We are very sorry to read, as we go to press, of the resignation of Mr. Potter, the Supervising Architect of the Treasury Department. We do not hear of the appointment of any successor.

AMERICAN ARCHITECTURE. — PRESENT.

It must be remembered that it is not in favor of the kind of architecture which we once had, that we have been arguing, but of certain qualities which it had in common with better architecture than itself, — with all good architecture, in fact, — and certain capabilities in the men who used it. Now that the qualities of sobriety, balance, subordination of design, refinement and careful adjustment of detail, are no longer supplied to us by the style in which we work, it is imperative that they should be supplied by the architects themselves; and these are the qualities in which, as yet, our work is weakest. It has spirit and life, it has boldness

often; but the ordered grace, the refinement and keeping which give lustre to these other qualities, is apt to be lacking. We have now so much greater opportunity than our fathers had, there is so much more freedom and inventiveness in our work, so many more forms at our command, that it is laid upon us to add to the good qualities of our own acquisition those that they bequeathed to us.

The only possible way out of such a chaos as we fell into was by the formation of a body of architects who should establish a fixed standard of taste, and bring the public up to it. This required men of training, and means of training them, that the public might appreciate the difference between the trained and the untrained; and some determination of the limits of the profession, so that it might learn to know who was an architect and who was not. It required agreement among architects; for, so long as they did and approved conflicting things, the public was not likely to attach weight to professional, but only to personal authority: and finally some organization in the profession by which it could develop in common a standard of design and rule of practice. We are far from having fully realized all these desirable things yet; but we have done a good deal towards it. The line of demarkation between builders and architects is becoming better determined; people realize more than they did, that the work of either is enough for one man, and that a man who is to be trusted to design must make design a specialty. The ambition of many persons who are not properly architects to call themselves so is an evidence of the greater importance that is now attached to the profession, while it is also an indication that its limits need to be still more distinctly defined.

At present, the extreme of license prevails in design. There are a few men among us who adhere pretty strictly to one or another of the received styles, but eclecticism is the rule; and general eclecticism means much incoherence and disorder. Under these circumstances, the distinction between architects' work and mechanics' work is much more strongly marked than it was. Once the difference was simply that the same familiar round of forms was better adjusted in the one case than in the other. But, now that the repertoire of forms is enormously increased, only trained skill can marshal them with success. The most capable of our architects find the new path a difficult one; and even they are perhaps only moderately successful in it as yet. The untrained man who essays to follow them makes himself conspicuously ridiculous. Academic conservatism we have none, old traditions and standards we have none: such as we had we have thrown away. Our government patronage has been worse than none: we have none, in any serious effort to develop art. Our present system of government work does harm rather than good to architecture, compelling, as it does, one man to turn out work on such a scale, that it must be either pretty much all alike, or all unstudied. Moreover, it prevents the Government from profiting by the ability of more than one man in the profession at a time, and too often, as appointments are made, may deprive it of all ability of the first class, while from all practitioners but one it cuts off the finest opportunities of practice which the country offers. The result has been, that on the whole, in spite of notable exceptions here and there, the government work has been inferior, as architecture, to the best private work; and nobody takes it, as it is taken in other countries, for a standard and an example.

In the matter of style, we have certainly a hard task laid upon us. We have to create an architecture; and we are expected to furnish it ready made. We are not given three or four centuries to develop it in; we no longer allow ourselves — perhaps are, by the conditions of the case, no longer allowed — to take a style already fixed, and work in it: but we must either make a new one, or work without any. We are like children in a toy-shop, dazed with the multitude of our opportunities, and for the present incapable of fixing our choice. We have three conflicting national influences among us, — French, English, and German. The French, through their artistic ascendency, exert more influence than their political connection with us would father. The so-called French roof gives their style a nominal foothold all over the country, although its real effect is seen chiefly in Eastern work. The English influence is shown, to a small extent, in a glimpse of "Queen Anne" tendency here and there, but chiefly in the so-called Victorian Gothic. The circulation here of the English architectural papers gives this a great impulse, and it suits the natural bent of our people. The German influence, strongest in the West, adds greatly to the confusion, because, although there is no such thing as a German style, the Germans, who come in considerable numbers, have a distinct manner of their own; and their eclecticism is very different from either the English or the French. The native element has come decidedly to the front in the profession, and we think the German influence is likely to decrease; but the struggle for a style, from which we hope in due time a distinct result, has but commenced. By this we do not mean that we hope for the establishment of this or that definite style, but for some characteristicaliy harmonious way of designing and some system of forms; we might better have said, a struggle for style.

As regards the standing of the profession, it cannot yet be said that the greater part of the building of the country is put into the hands of architects, even in the great cities, though almost all important work everywhere is designed by men who call themselves architects (a title, to be sure, which at present is usurped by pretty much everybody who wishes it), and who devote themselves pretty exclusively to designing architectural work. The number of these is greatest in proportion to the population in the largest and oldest cities, and varies a good deal among these. Boston has for some time had a greater proportion of architects than most of our cities; and in that city and Chicago the profession has enjoyed the exceptional advantage of a great fire. In Boston, with a population of about three hundred thousand in the city proper, the directory gives the names of more than a hundred architects. Chicago, a city of about the same size, has about a hundred. New York, with nearly a million inhabitants, has but about half as many again. In Philadelphia the proportion is said to be small, though the directory gives no figures. St. Louis, the rival in population of Chicago, has fifty-four. Baltimore and Cincinnati, cities not far behind in numbers, count, — the one forty-six (including civil engineers, who are recorded with them), the other twenty-five architects. Of architects a considerable proportion, in the larger cities at least, are men of professional attainment and skill; and it is noticeable, that although, a short time ago, all the real skill of the profession was confined to three or four cities, now not only are there many cities whose buildings show the mark of instructed professional hands, but here and there throughout the country in outlying places we come constantly on work that speaks of educated local practitioners, a thing which it is safe to say was not to be found among us twenty years ago. It is true, the work of our best-built cities is not all that we could wish. It is mostly tentative. It bears the mark of haste and of imperfect mastery of means; it is apt to be full of incongruities. Yet it is enterprising, inventive even, full of vivacity. It is the work of men who are alive to what the world is doing in their vocation, and in every way gives token of the interest, life, and serious effort, which are the earnest of success, as well as of a capacity of design which is hopeful. At present, the architecture of the country is strongly marked by an aspiration for smartness, a tendency toward the fantastic even, and a restlessness and want of subordination which are far from the repose of really disciplined design; but it has life in it.

The one organization that exists among our architects is the American Institute; and to it is due much of the standing and influence that the profession has latterly acquired. It contains at present but a small minority of all the architects in the country, — a minority even in most of the cities where its chapters exist, — but yet a large proportion of the most capable and eminent. It was established in 1857, as a local society in New York. Outlying members were from time to time added to it in other cities, until in 1867 its plan of organization was changed into a confederation of chapters, independent in local action, but governed by general laws, represented by a central executive body of trustees, and meeting annually in a general convention. Chapters now exists in all the cities of first rank in the country except St. Louis, New Orleans, and San Francisco, and in some of the smaller cities. Since it has been the only society of architects in the country, all that has been accomplished here by architects as a body has been accomplished through it. Its influence has done much to establish uniformity of practice, and to make the duties, responsibilities, and rights of architects understood. Its various chapters have been active in their efforts to secure good building-laws in the towns where they are, and have succeeded in several cities. They form a body which is useful in giving professional counsel, and in fixing public opinion in professional matters.

On the whole, the condition of architecture in the United States is very hopeful. It is idle to suppose that we have accomplished any more than a beginning. But we have made the beginning; and, considering how we started, it is a pretty good beginning. We naturally get our inspiration from the Old World, and for a good while we must. Our best work is far behind that of the Old World in disciplined skill. The lack of established traditions and of the good architecture of past ages is an immense disadvantage. The lack of a style to work in is, to our judgment, another. We have to make up for these things by the careful training of the individual, by the hearty concert and common action of the profession.

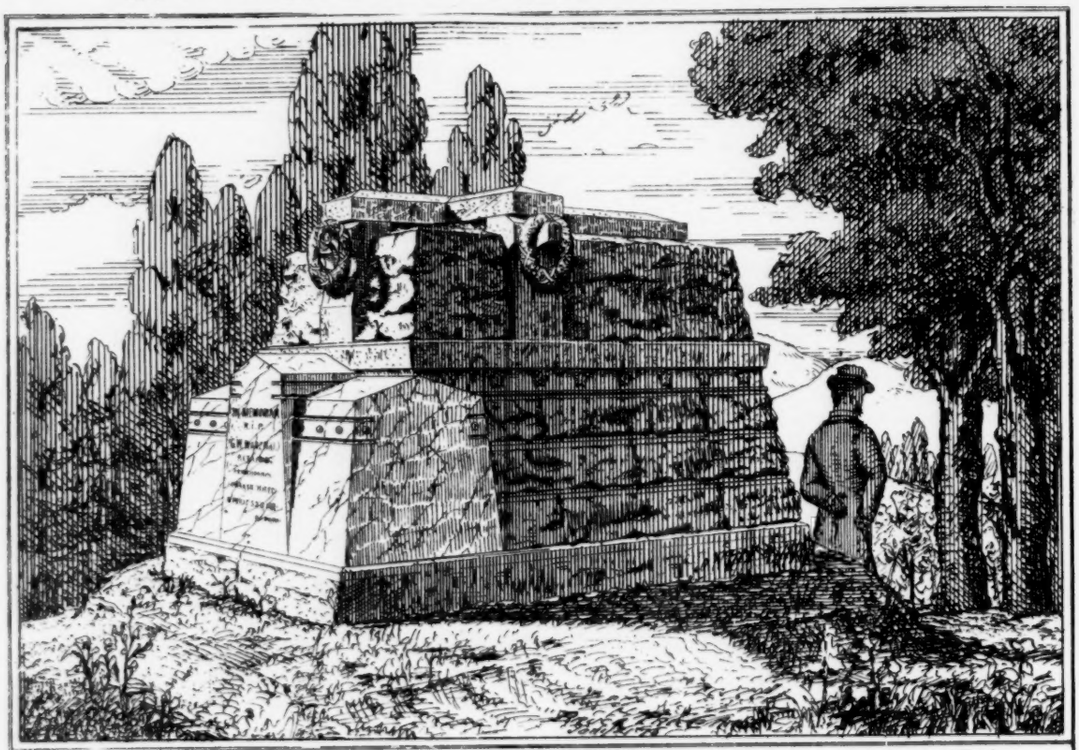
CERAMICS AT PHILADELPHIA. — II.

THE commercial ideas which underlie so much of the best work shown by the United States come to the surface so prominently, in the sub-section of ceramics, as to challenge criticism. Whatever is calculated to sell, either for its cheapness, or for its mere imitation of good models and sound methods of production, is displayed with utter disregard of the true purpose of an exhibition. No grander estimate seems to have been formed than that which consists with the opening of a huge bazaar wherein goods (some of which are very far from being good, in any sense of that term) might be offered for sale under conditions of advantage not to be found in a city store. The points of excellence which genuinely mark sundry branches of American pottery are, on the other hand, not to be found among the features of the Centennial show. An illustration of this somewhat sweeping censure may be cited, in the entire omission of the Philadelphia and Milwaukee bricks. The qualities of those bricks have given them a well-deserved celebrity. They closely resemble in the compactness and slight shrinkage of the clay, in the uniformity of their color, and their superior lasting properties, the fine patent white and red moulded bricks of Stourbridge, in England. The mother-country exhibits her bricks, small as the chance is of extending the market for them to the western shore of the Atlantic. Not so the United States. And in another essential particular America suffers by a comparison with Great Britain, as she will continue to suffer just so long as the commercial shall be the only aspect in which her manufacturers care to view their work. Stourbridge and London are not content to send specimens of the ordinary bricks only, but send examples of moulding in every possible variety of decorative forms. Strangers visiting Philadelphia for the first time see much in the appearance of the better order of residential streets to commend the city to their favorable regard. There is an absence of that vulgar splash into mere costliness, an omission of stucco, a lack of brown-stone fronts; there is a steady and persistent resort to the red brick for building, and a uniform employment of white marble for relief to the eye, that speaks at once of the solidity of character and of works which in England and elsewhere are the admiration of the civilized world. But also there is observed to be an almost complete want of that æsthetic culture which is gradually extending among even the lower middle class of English society. No London builder would erect miles of plain brick dwelling-houses for wealthy residents, unrelieved by decoration as substantial as the materials of which the houses are built. It would be difficult to find a London architect who could commit the blunder of wedding friable marble to brick that is proof against climatic influences. For our principal cities there is, however, no immediate prospect of a more satisfactory condition of things. Finials and string-courses, capitals and moulded decorations, are neglected by our brickmakers and our potters, who have yet to learn the first principles of an art which good taste should have taught them long ago.

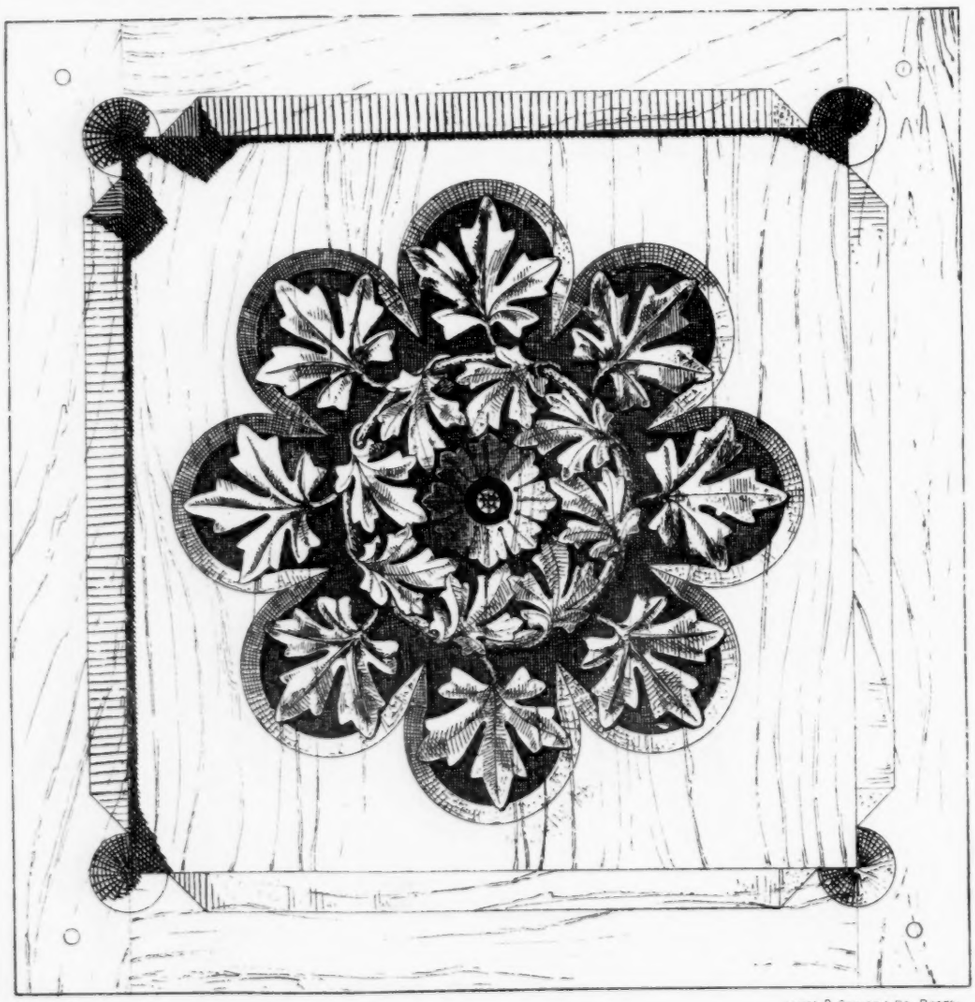
The Brazils and the Argentine Confederation, while they have little wherewith to challenge attention in ceramics generally, worthily exhibit examples of each of the several kinds manufactured by their people. Neither country puts forth any pretensions to excellence. The bricks and building-tiles from the River Plata are, however, superior to those from Santa Catharina. The Brazilian work is too porous. The overflow-pipes and small drain and channel pottery look as if they might be intended for riddles, so evident is it that sweating through the coarse texture of the clay would carry off nearly as much water as might be poured into them. The bricks are more weather-proof, but they do not realize the standard of durability attained by the Argentine exhibits; and these are, in their turn, wanting in finish.

In sanitary pottery, several United States manufacturers make bold essays, as they do also in garden terra-cotta and in chemical ware. The Moorhead Clay Works are the place of production of some large sewer-pipes, the thick metallic glaze upon which in no way hides their coarseness. Mr. R. G. Remmey of Philadelphia exhibits chemical stoneware, defective in finish, rude in form, and adorned with paint in a fashion that is amazing to contemplate; and, where paint is not so applied for external decoration, it is sometimes exceedingly difficult to trace any definite tone as the result of firing or glazing. The productions look coarse, and scarcely fit for their designed uses. It is due, however, in this instance, to the manufacturer, to state that persons who have had them in use speak well of them, while they prefer English stoneware. Mr. Remmey's work is thinly glazed, — a circumstance that may be accepted as presumptive of soundness and strength. Every additional firing of pottery necessarily weakens it; and hence a high glaze frequently covers an inferior body whose weakness and whose faults it is designed to conceal. No deception of this nature is manifest in the exhibit under notice; although in much work of the kind, in the home department of the exhibition, the greatest strength appears to be in the glaze, which needs but scratching or crazing to render the body worthless.

The English exhibitors alone show the manifold uses of clay in the constructive and decorative arts. Messrs. Eastwood of London have an extensive variety of Broseley, Dutch, and Stourbridge bricks, squares, and tiles, and adamantine clinkers, that give one an impression of being meant for eternity. Messrs. King Brothers of Stourbridge furnish building-pottery in brown stone, blue brick, and fire-clay, — the last-named material being worked into large cylindrical columns, in evidence of its utility for the higher branches of architecture. A like use, but in more distinctively decorative forms, is made by Mr. Thomas Peake of Tunstall, of terra-metallic ware, a combination of iron in considerable proportions with the clay which is the chief constituent. Here are geometric and floral patterns, — some impressed, others moulded in relief, — and monograms moulded in medallion centres with true artistic effect. The terra-cotta from the Tunstall Tileries is fine and even enough in tone to have been selected for exhibition with peculiar care. Near by are the productions of the Selenitic Cement Company, of Westminster. These are worthy of careful inspection, owing to the enormous strength attained by the combination, under Major-Gen. Scott's patent, of sand and cement in the proportions of eight to one. The perforated tiles for malting establishments, of Messrs. Stanley Brothers, of Nuneaton, are among the British novelties that will bear close scrutiny. Messrs. Francis & Co. of Vauxhall show samples of Portland cement concrete in which gravel is present in the proportion of eight to one; but the combination is apparently not so effectual as by the selenitic process, and, while serving for rough uses, can hardly become available for ordinary building where taste is in a measure demanded. Messrs. Wood & Ivery, of West Bromwich, surpass even Mr. Peake in the decorative employment of blue brick, terra-



THE · WOODWARD · MONUMENT ·· WILKES-BARRE PA ·· BRUCE · PRICE · ARCHT:



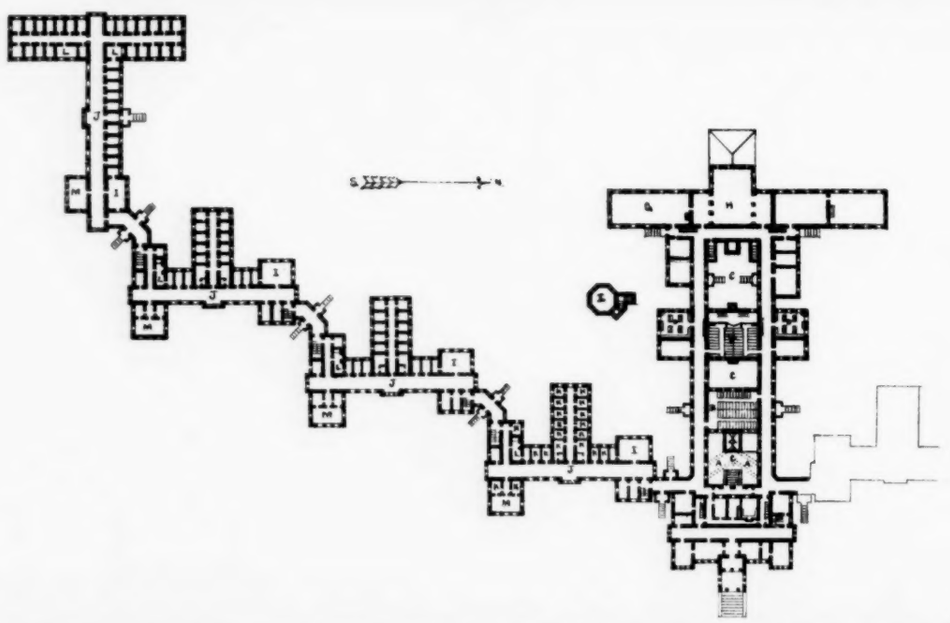
HELIOTYPE JAMES R. OSGOOD & CO. BOSTON

Design to fill a Geometric form.

by Harry N. Kendall.

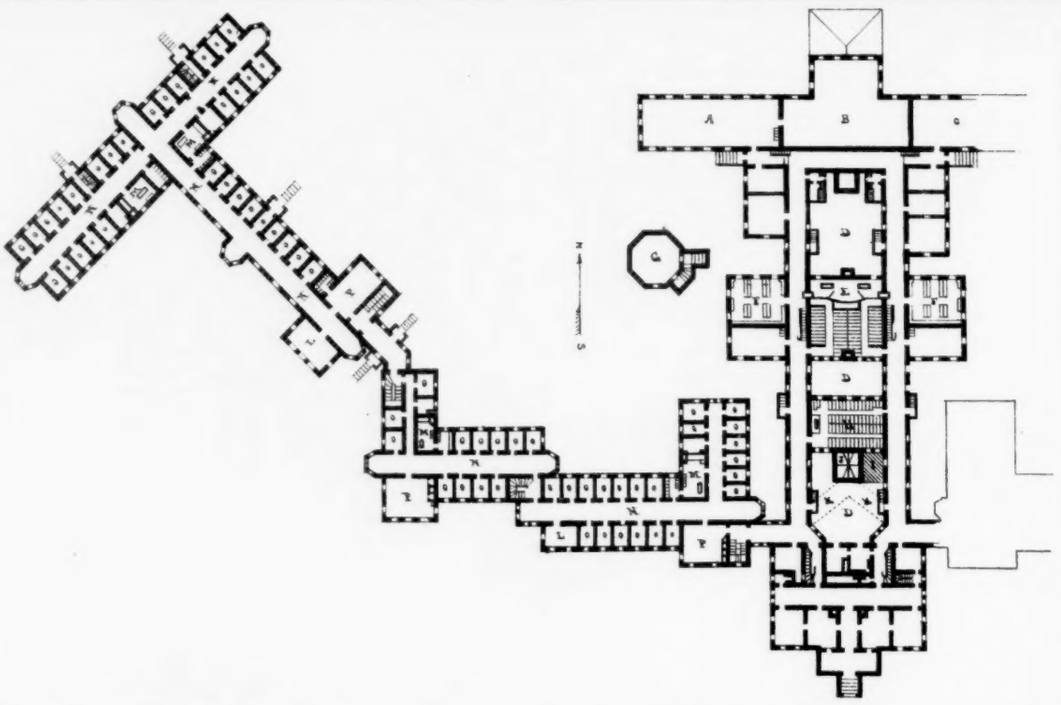
TOPEKA

A. Underground air ducts.	E. Water, and Ice house.	H. Drying room.	K. Dormitories.
B. Chapel. C. Courts.	F. Amusement room, over kitchen	I. Dining room.	L. Bath rooms.
D. Clothing store rooms.	G. Ironing room.	J. Day halls.	M. Parlors.



• KANSAS STATE INSANE ASYLUMS •

HASKELL & WOOD, ARCHTS., LAWRENCE, KANSAS

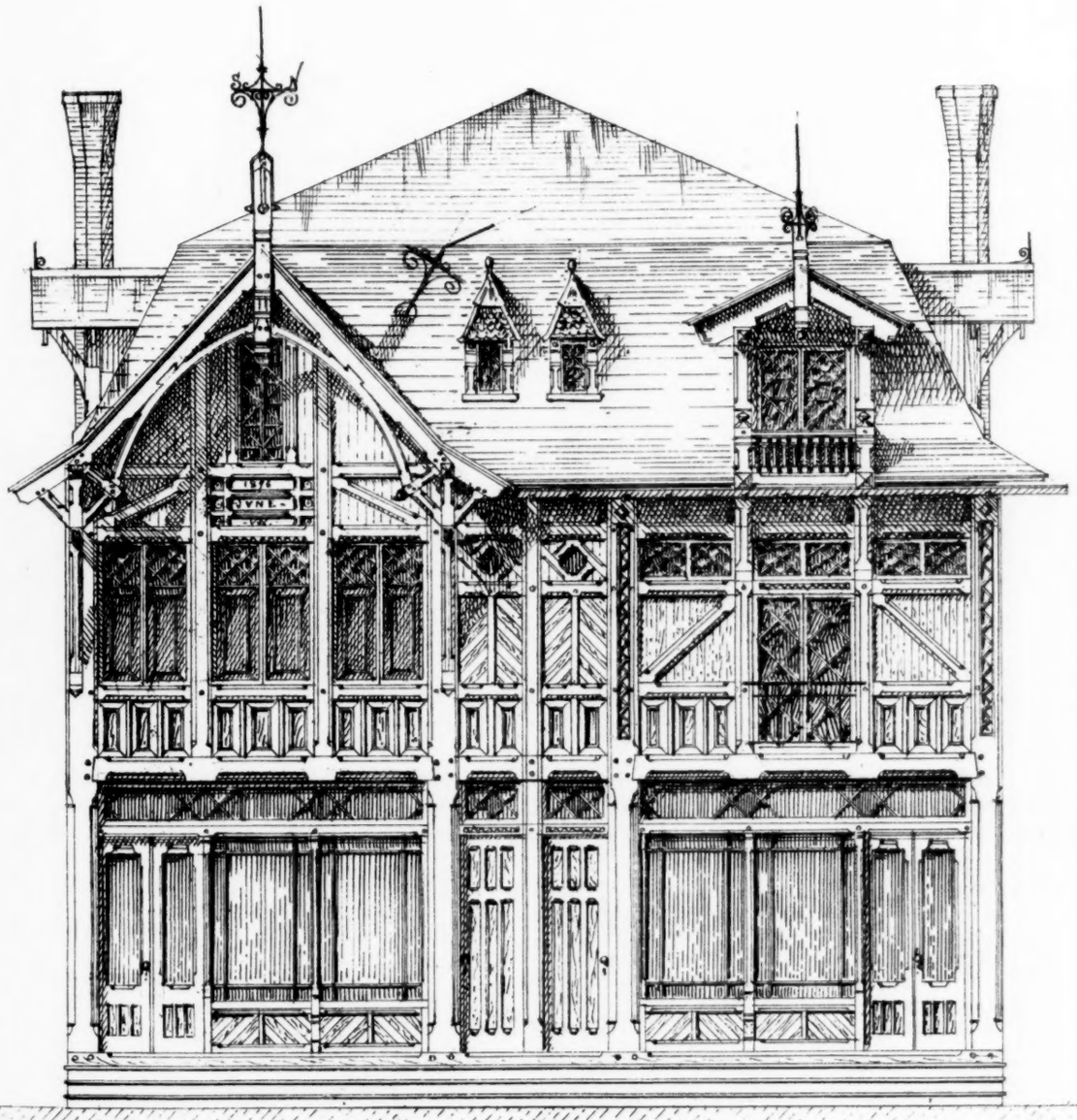


A. Ironing room.	E. Amusement room, over kitchen.	I. Engine house.	M. Bath rooms.
B. Drying room.	F. Clothing store rooms.	J. Fan room.	N. Day halls.
C. Shops.	G. Water tower, and Ice house.	K. Underground air ducts.	O. Dormitories.
D. Courts.	H. Chapel.	L. Parlors.	P. Dining rooms.

OSAWATOMIE

HELIOTYPE

JAMES R. OSGOOD & CO. BOSTON

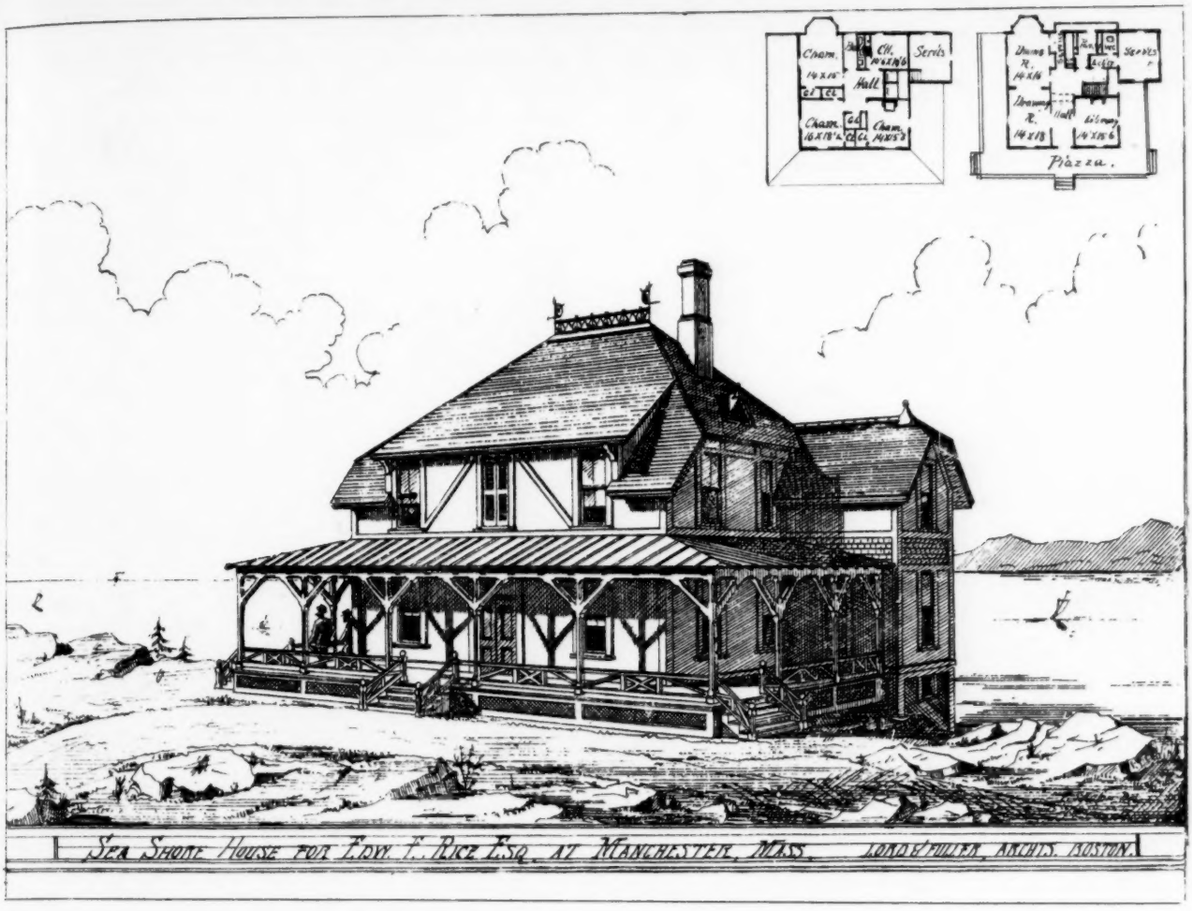


STORES AT RIDLEY PARK DELAWARE COUNTY PA.

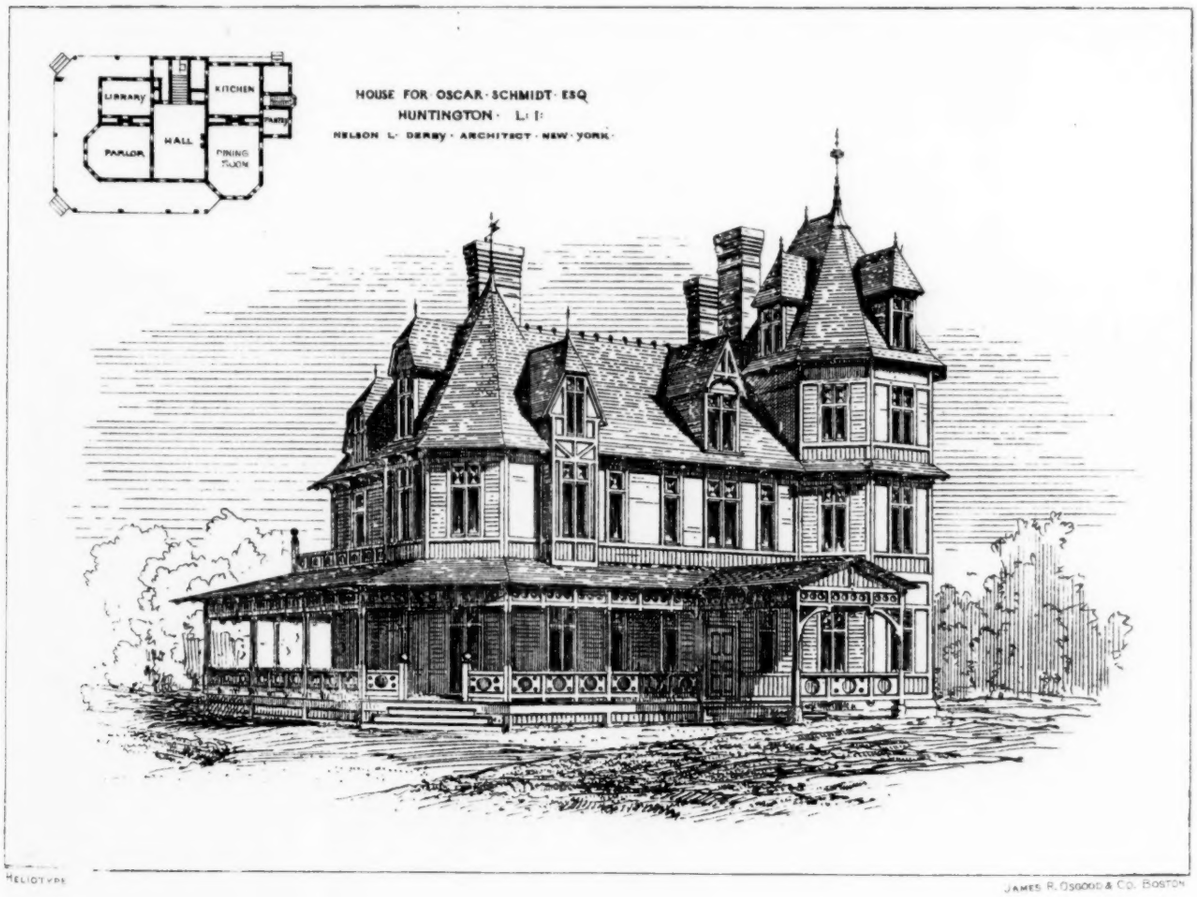
THEOPHILUS P. CHANDLER JR.

HELIOTYPE

JAMES R. OSGOOD & CO. BOSTON



SEA SHORE HOUSE FOR EDW. T. RICE ESQ. AT MANCHESTER, MASS. LORD & HILLER, ARCHTS. BOSTON.



HELIOTYPE

JAMES R. OSGOOD & CO. BOSTON

metallic, and terra-cotta. The first is shown both lightly and highly glazed, the glaze being in neither case the material which challenges criticism. The first and the second are treated also as appropriate materials for architectural scroll-work ; and the effect is as nearly perfect as the chisel of a sculptor could produce.

Of architectural terra-cotta, the whole quantity shown is small, so much so as to disappoint expectation. Several English firms proposed to exhibit extensively; but the commissioners declined to furnish the space for additional stands outside the Main Building. The employment of this material is not, as is generally supposed, absolutely a new thing in England. Ancient Elizabethan mansions were largely constructed of terra-cotta; and it did not wholly fall out of use until near the end of the last century. A revival has been in progress during twenty-five years past; and in spite of the hideous experiments on the exterior of the Albert Hall, where the workmen jested in 1869–70 upon the impossibility of a straight line in the vast building, the manufacture has gone on steadily improving ; harmonizing more perfectly with English tastes than the more garish colors of majolica, which also is brought into service on the pillars supporting the roof of one of the courts of the museum at South Kensington. The permanence of terra-cotta is proved by discoveries of its extensive adoption in Herculaneum and Pompeii, as well as in ancient Rome. It is peculiarly liable, however, to warp under the rays of the sun, if it be subjected to too great a heat in firing; and it is to this fault in the manufacture that the failure at the Albert Hall must be attributed. In strength equal to the hardest granite, often equal to a pressure of four hundred tons on the square foot, and in durability outlasting the finest marble by, at the least, a thousand years, it would seem worthy of adoption, especially in memorial buildings, such as the Boston Art Museum where it is already employed. The average shrinkage in baking — a fact unknown to the persons in charge of the American exhibits — is equal to one in twelve, when the clays are properly mixed.

In sanitary pottery, the exhibits of Messrs. Henry Doulton & Co. of Lambeth deserve particular mention. This firm has sent over the largest jar in the exhibition, equal to two hundred and twenty gallons measurement — an immense piece to be thrown from the wheel. A segment of sewer, fifty-four inches in diameter, made in chambered sections, is also the largest and strongest example ever attempted in such materials. The fame of the Lambeth Potteries for work of this class has been greatly enhanced by the published report of the tests to which the drain-pipes of leading English potters were subjected a few years since, at Sunderland. Hot controversy had been waged as to the advantages of porous or non-porous pipes; and so high an authority as Sir John Hawkesley had given his opinion emphatically for the porous system. The issue of the conflict was, however, a general agreement, that, if drainage were needed at all, it must be effected through pipes that would carry clear away whatever they might be charged with, instead of retaining aught by their absorbence, or permitting its escape by percolation into the surrounding soil. The town-surveyor of Sunderland submitted a number of drain-pipes to a series of crucial tests, including that of submergence for twenty-four hours in water, weighing them before and after, to ascertain the amount of absorbence. The more porous pipes of course were considerably augmented in weight, while those from Lambeth were the least affected by the test. The grand obstacle to the more liberal use of pipes for drainage has hitherto been the weakness of the joints, which crack upon a subsidence of the ground beneath them. Messrs. Doulton have found a means of effectually overcoming this difficulty. The new joint is formed from a bituminous compound that holds firmly the several lengths of pipe. The fitting is perfect: yet, if the bed sink, the joint also settles itself without a fracture, and remains firm as before; in a remarkable manner illustrating the principle of a cup-and-ball joint. The joint is certain to catch the eye of any architect or surveyor who may chance to scan the exhibits for novelties.

Spain exhibits some tiling of average excellence, and some highly colored glazed channelling, the utility of which is doubtful, and the appearance bad.

Of *'sgraffito*, in its architectural use, — an English re-discovery (through the distinguished landscape-painter Mr. Andrew MacCallum) of a long-lost Oriental and Italian art, — no example is shown. The secret is so simple, and its application with fairly artistic skill is so readily available, that it may fitly be mentioned here, albeit it scarcely comes within the province of pottery, except as it is applied in the decoration of vases. It consists in the covering of the portion of an architectural façade to be treated, with cements. That which is first laid on is dark, and it is allowed to become well hardened. Then a light-colored cement is placed over the first dark coat; and, while still wet, figures and designs are traced with a pointed tool and a free hand, so as to show the dark background. For buildings of severely classic design, the *'sgraffito* process is eminently adapted. It is necessarily inexpensive. It may be as artistic as the conceptions of the workman will allow. It continues without renewal, as imperishable as the fabric it adorns.

THE ILLUSTRATIONS.

THE WOODWARD MONUMENT, WILKES BARRE, PENN., MR. BRUCE PRICE, ARCHITECT.

THE Hon. George W. Woodward, formerly Chief Justice, Supreme Court of Pennsylvania, died at Rome about a year since of malarial fever. The monument to his memory, given in this week's number, is being erected by his heirs. The material employed is Meshoppen blue-stone. The pile is twelve feet long and eight feet high, and is located in Hollenback Cemetery, near Wilkes Barre.

A DESIGN TO FILL A GEOMETRIC FORM. MR. H. N. KENDAL.

KANSAS STATE INSANE-ASYLUMS. MESSRS. HASKELL AND WOOD, ARCHITECTS.

Want of space prevents our giving more than half of the ground-floor plans of the hospitals at Ossawatomie and Topeka, Kansas.

As a perfect and complete system of sewerage and ventilation is most important in hospitals, the bath-rooms and water-closets of these hospitals are on cross halls in the rear of each wing. A large shaft is provided, passing through all the stories, and discharging through a galvanized-iron ventilating-cap ten feet above the roof. All water, steam, and soil pipes are carried to the several stories, upon the inside of this shaft, giving convenient access to them in case they need repairing; the shaft being provided with a man-hole at the bottom, and an iron ladder extending the full height. The soil-pipes extend to within ten feet of the top of the shaft, and for the present are left open at the top. A steam-coil placed near the top of the shaft, assisted by the pressure exerted by the fresh-air supply-fan, causes a constant current from all of the adjoining rooms, through registers placed in the sides of the stack connecting with the several rooms. The water-closets are ventilated by means of the open "Philadelphia" hopper connecting with the soil-pipe, which, being open at the top as stated, insures a thorough ventilation of the room. Each bath-room is provided with a steam-closet of sufficient size to contain a mattress; and the heating pipes for this are so arranged as to be made to contribute to extra temperature in the bath-rooms, or to increase rarefication of the air in the ventilating-shaft. The soil-pipe connections with the sewers are, for the present, trapped in the usual manner; but the architects, believing in the thorough inefficiency of "traps" of any kind, intend, when the sewer-pipes are all laid, to remove them, and place an air-lock at the main outlet. Then an exhaust-blower will be attached to the main sewer-pipe, discharging into the main stack of the furnace, which is one hundred and four feet high above grade. The tops of the soil-pipes will then be closed. The blower will be of sufficient capacity to cause a constant inward suction at all openings of sewer and waste pipes everywhere. This method thoroughly prevents any sewer-gas from entering the buildings, and discharges it at a sufficient height to insure its harmlessness. The method of heating is that of indirect radiation; all radiators being placed in a plenum beneath the basement of the various corridors; this is six feet six inches high, and ten feet wide, and serves also for the conveyance of all steam and water pipes to the various parts of the asylum. The water-heaters and cisterns for drainage of the coils are also placed in this duct near the boilers. The fresh-air supply-fan is placed in the rear of the main central building, and is connected with the plenum upon either side, by means of branch underground ducts, shown by dotted lines. This fan is worked by a separate engine, supplied with steam from the boilers in the rear.

The Ossawatomie Institution is built of brick, with cast-iron window-frames, in a plain Italian style. The Topeka Institution is built of hard gray limestone, relieved with lighter stone. All dormer-windows, as well as the portico, are of cut stone. The main building has a central tower, one hundred and thirty-two feet high above grade. All sashes above basement are of cast iron.

SEASHORE HOUSE AT MANCHESTER, MASS. MESSRS. LORD AND FULLER, ARCHITECTS.

THIS house is now being built at Manchester, Mass., on the "Old Neck." The basement story (which is above the ground in

the rear) is built of rubble-stone taken from the premises, and contains kitchen, servants' dining-room, pantry, laundry, etc. Above the basement, the house is built of timber, clapboarded and shingled. The house is framed and constructed throughout with reference to resisting the winter winds to which it will be much exposed.

STORES AT RIDLEY PARK, PENN. MR. T. P. CHANDLER, ARCHITECT.

HOUSE FOR MR. OSCAR SCHMIDT. MR. N. L. DERBY, ARCHITECT.

THE FINE ARTS AT THE CENTENNIAL. — VI.

THE BELGIAN PICTURES.

IF the territory of Belgium comprised only the lowlands, the natural limits of the old kingdom of Holland, the modern school would differ little from the Dutch. The present Belgian school has two distinct divisions, — the Flemish, and the branch of which Bruxelles is the centre that might with justice be called the Walloon, since this element is so strong in it. The Antwerp masters and their followers are the conservative party in the guild, and the progressive members are mostly found in Bruxelles. The late Baron Leys, the most famous Belgian painter of the age, exerted a notable influence on the art of his country; and his numerous pupils are to-day close imitators of their master, forming a class by themselves. Antoine Wiertz, who died a few years ago, serves rather as a warning than a model for the student, since with his vagaries, his fanatical admiration of Rubens, his peculiar facility and wonderful intellect, he has many admirers but no followers. The seriousness of Leys, the enthusiasm of Wiertz, the formality of the academicians, have all played a great part in the society, which, from the nature of things, is more or less intimate; and to-day there is more promise in the schools than ever. Naturally enough the mass of painters settle in the capital; but the students still seek their instruction among the quiet influences of Antwerp, looking forward to Bruxelles as the stage for their exploits. In the Belgian display, the pure academic works are very prominent. Slingmeyer shows two large but mediocre pictures in his usual facile manner; and Stallaert, the professor of drawing and painting at the academy in Bruxelles, sends an intensely dramatic painting of the cellar of the house of Diomede at Pompeii during the eruption. The composition includes a dozen or more life-sized figures in all the agonies of fear and the tortures of expected death. Mothers hold their children up to the fierce flames that swoop down the stairway; others writhe in the torments of suffocation. The picture excites one's contradiction from its evident falsities of effect and of expression; and at the same time one is obliged to confess that there is some most excellent painting and some good drawing in it. Neither of the two contributions of M. DeKeyser, the director of the Antwerp Academy, does him much honor. They are nerveless, cold, and uninteresting. The larger of the two, "Dante and the Maidens of Florence," is a fair specimen of the artist's last manner, the result, no doubt, of his ten years' labor on the decorations of the vestibule of the Antwerp Museum. The second picture he calls Rebecca; and it is as good by any other name, since it is a conventional study of an Italian model leaning on a jug. Portaels, who is well known as the most successful instructor in Belgium, under whose charge developed Emile Wauters, the most promising young painter of the nation, already medalled at several great exhibitions, sends two examples of his skill, which will not inspire the student to seek him as a master, although both have strong qualities of *technique*. They fail where most Belgian pictures do, in motive, and are careless in drawing beside. One is called "Morning," and is a study of a young girl with a cock perched on her shoulder: the other he names "Deception," — a study of a brunette with rich drapery and a fan. We hasten to give proper praise to a superb piece of flesh-painting, the "Clytie" of Legendre, which has no equal in fineness of tone and modelling. It is a life-sized figure of the nymph dragging herself on the ground, after the desertion of Phœbus. The landscape is rigidly classical, and the figure decidedly realistic; but it is a wonderful piece of flesh-painting in spite of the incongruities in the picture.

The *genre* painters are represented by a few interesting contributions, of which Jan Verhas's study of three children digging on the seashore in the sunlight is the most prominent. The figures are strongly painted, lacking a little in variety; and the landscape is refreshing to look upon, especially the cool, green tone of the water, and the distant breezy sky. This artist seeks his motives always among the children of the better class, and does not depend upon poverty and its accompanying picturesqueness for the interest of his pictures, but relies upon his faculty of catching expression, and rendering artistically ordinary scenes of domestic life. One of the most successful imitators of Baron Leys is Frans Vinck, who ranks midway between *genre* and historical painters, because he is equally both, and not very famous as either. His chief contribution is entitled "The Confederates before Margaret of Parma," a collection of marionettes with little expression, no charm of face, figure, or action, and only saved by a masterly refinement of color, and strength of tone. Victor Lagaye, another pupil of Leys, sends an interior with figures, that certainly has a great distinction of tone, and a hint of the peculiar handling of the master, but nothing more. Of the younger artists, Karel Ooms is almost the only contributor. His picture, "The First Ice," — a little peasant boy who has fallen into the water, and is helped home by his sister, — shows much skill and a capability of expression.

Of the Belgian landscapists, probably the most famous are Lamorinière and the marine painter Clays: neither is represented. Joseph Van Luppen sends three characteristic pictures, diverse in motive, equally well painted, skilful almost to a degree of conventionality. This artist has a faculty of picture-making without becoming tiresome in repetition, and is especially happy in morning effects. The canvases of De Schampheleer are more scenic and not as wisely composed, but are equally attractive. These, with the architectural views by Robert Mols by no means equal to his first pictures in this line, a poor example of Fourmois, and a good study of a canal and mill by Gabriel, are almost the only noticeable pictures of this class.

THE OLD SOUTH MEETING-HOUSE.

THE contest over the Old South Meeting-House in Boston is producing much unpleasant feeling on all sides, and a good deal of plain speaking has found its way into the daily papers; notably an open letter addressed to the Standing Committee of the Old South Society, by Mr. C. C. Coffin, in which the action of the Committee is reviewed and commented on with some severity. We fear this is a mistake, however well intentioned it may be. If the Committee cannot be persuaded from their course of action, they certainly cannot be bullied from a position where their legal right to act as they propose is beyond dispute. What seems to urge them to continue in their present course is the fear of incurring another such loss as befell them a few years since, when litigation prevented their selling the property to an insurance-company at the rate of $60 per square foot, that is, for a total of over $600,000; so that even supposing they obtain the sum they now demand, $420,000, they argue that they have lost, interest included, something over $200,000, and that that sum is as much as they can afford to contribute to preserving the building. In reply to an inquiry of the Citizens' Committee, asking if the offer of $25,000 towards the preservation of the building made by the Old South Society in February last was still open for acceptance, the Standing Committee — while acknowledging that such offer was made by certain individual members of the Society, with the proviso that all the purchase-money less this $25,000 should first be subscribed and paid in — said that they considered it more than doubtful if these gentlemen were still willing to abide by their offer, since the motives and actions of the Society had been held up to the public in so unpleasant a light. They also said that the uses to which many of those who are most active in endeavoring to save intend to put the building would probably influence these gentlemen in refusing to renew their offer. Whether these gentlemen object to the building being used as a free-church, as a hall for public prayer-meetings, or as a hall for political or municipal meetings, they certainly seem to object to the building being used for an historical museum under the guardianship of the Massachusetts Historical Society; for it is now announced that the offer is definitely withdrawn.

The latest information received is, that the Commission of Fifty appointed by the Massachusetts Historical Society is considering the advisability of offering a rent of eight thousand dollars for the premises. Meanwhile the possibility of the ultimate removal of the building is not lost sight of; and several offers of a site for the building upon the Back Bay land have been already received. These sites are all in the immediate vicinity of the new building of the Old South Society, — a fact which has given rise to the foundationless report, that, if an attempt is made to reconstruct the building upon any of these sites, the Old South Society will procure

an injunction upon the proceedings. There is a great want of definiteness about the whole matter, which may well account for sluggishness in responding to the call. Nobody knows the precise object for which the building is to be used, if saved; no one knows how much money is still to be contributed; and no one knows whether the Standing Committee consent to grant more time by leasing the building for six months at a fair rent. There can be no doubt but that with a little more time the money can be raised, because the sum already received has been the result of the voluntary contribution of individuals, and direct solicitation has not yet been much resorted to. Of the numerous practicable ways of raising the money, which have been suggested, none have as yet been tried. If more time is granted, the Grand Army of the Republic can lend the systematic assistance that it promises; the fair that the ladies propose holding this fall in the church can be prepared; it will give time for the rehearsals of a series of concerts which a well-known musician has offered to organize and conduct. Another gentleman has offered to give the profits of a lecturing-tour; and there are several other projects, of more or less promise, by which it is proposed to raise the money. The City Government will probably appropriate something for the fund; but, unfortunately, it does not meet till September.

CORRUGATED IRON ARCHES.

Chicago.

To the Editor of the American Architect and Building News.

My failure to receive the *Architect* of July 8 until a week after it was due in this place is the reason for not noticing the communication of George Dwight, Jun., & Co., sooner; and I feel doubtful even now of any necessity for so doing. For I cannot understand how any one, who has attentively read what I have on several occasions written upon the subject of fire-proof floors, can believe that I have ever said any thing to the detriment of the business of George Dwight, Jun., & Co. in that line. Still there may be those who misunderstand me; and, at the risk of giving Mr. Dwight more gratuitous advertising in your columns, I am constrained to rejoin in a few words.

In some remarks made by me at the Convention of the Institute held in Boston in 1871, and published in the Proceedings, I gave my testimony as to the efficiency of the corrugated iron arches between beams, and used for the support of concrete filling, as found in the partially destroyed buildings of this city; which ought to have given Mr. Dwight much comfort. I ascribed the fall of the floors of these buildings to the weakness of the columns and beams, which were unprotected, rather than to any other cause. It is needless to quote, for any one can consult the Proceedings.

Mr. Dwight in his communication takes up statements contained in my paper prepared for the New York Convention of 1874, and just now published in the *American Architect*, in which I re-stated with more fulness what I had said before, and deduced conclusions in which I think I shall be sustained by every intelligent architect who has investigated the fire-proof question. This conclusion is based more upon the weakness of other so-called fire-proof devices, than the methods in use for filling between beams. Mr. Dwight's letter shows that his conception of a fire-proof building is based mainly upon the corrugated iron arches which he manufactures; which is very natural to him, but it does not "fill the bill." Following out his line of argument he quotes my language to prove his position; and the very illustration I gave of the efficiency of the corrugated iron floors in a place where they were entirely supported by brick walls, in the Fidelity Safe Depository in this city, is by him turned against my whole argument. Your readers can judge for themselves, from my entire paper, whether or not I have said any thing to the detriment of Mr. Dwight, or the article he manufactures. Had he waited until the third part of the paper appeared, he would have seen that I mentioned the Joseph Gilbert corrugated arch, and the flat corrugated iron ceiling, as among the possible devices to be used in connection with wooden beams in fire-resisting buildings of inexpensive materials. Now, it so happens that the corrugated arches of Joseph Gilbert's patent, formerly made by the Union Foundry Works of Chicago, which controlled the patent for this section, were the only corrugated iron arches in this city at the time of the great fire. These are the floors which Mr. Dwight mentions as built according to "our method."

Your readers will remember that he threw his cudgel at Mr. Hutton in a letter to your journal in February last, because he (Mr. Hutton) had ventured to make some remarks on this delicate subject. It was returned with interest, not only by Mr. Hutton in one of the March numbers, but by your Chicago correspondent in that of April 15, who gave the facts of the case as seen by an eye-witness.

I hope that I have not herein said any thing to the prejudice of corrugated iron arches *when filled over with concrete arches;* for I have had no such intention, either in previous writings or this letter.

Very respectfully yours,

P. B. Wight.

A WORD FOR MECHANICS.

There was a time when stress was laid on the fact, that whilst many who were fairly educated, and who had good opportunities at the start, failed in business, others who had none of the advantages offered even by a common school made their way in the world and to places of influence and trust. But we have somewhat different views now, and a higher sense of what is due to the rising generation. At best, the rise of men who have known but few of the advantages of early education has been slow and painful; and the reward has been vouchsafed only to the strong in mind and body. The instances that have occurred do not establish a precedent. They are the exception, not the rule; and he who fails to educate his child, believing that he will come out all right in the end, has paved the way to a pauper's grave. Happily there are but few who are willing to take such risks; the tendency being now to overdo, to cram, rather than to neglect the education of our youth; and the boy or girl who has not acquired the rudiments of learning, in town or country, must be the offspring of most depraved parents, some waif that has escaped the watchful eye of those who gather the outcasts, and take them to the homes provided for them by a liberal public.

But the instruction in our schools is wholly mental; and, when the time comes for the boy to make some effort for his own support, he is taken from his books, and is placed with some master-mechanic, to learn the trade of his own or his parents' choice. And here the mistake in his education too often begins. He may read, write, and cipher, tolerably well; but the chances are, he has no taste for reading, for he has never been encouraged to make companions of books; and his employer, looking only to his own interest, ascertains what the lad is most capable of, and then keeps him to one branch of his calling, literally making of him a "one-branch hand." He may become a good mechanic, as the term goes; but his ideas and his resources are necessarily limited. He has learned to do one thing, and only one thing, well. And he must go on as he has begun; for as soon as he is out of his time he marries; and then, with a family to support, he has no time to learn other branches of his calling, even if he should be allowed to by the rules of the shop. In a word, he is stunted, his faculties remain undeveloped, and he has become a machine.

Greater perfection can undoubtedly be obtained by a division of labor; but the gain is at the sacrifice of other qualities. The machinery of a watch may be brought to a greater nicety of adjustment in this way; but the man who works year in and year out on the fractional part of a time-keeper can take no deep interest in his calling. He would be like the man who said that his meals, whatever they might call them, always tasted like porridge. The wheel he works on in the afternoon is not the one he worked on in the morning; but it is exactly like it in every particular.

What interest, for example, can a man take in his work, who does nothing but make bureau or sideboard drawers? He has but one thought, one aim, — to turn out the required number in a given time; and he is always glad when his day's labor is at an end. But if he had been taught as apprentices were formerly taught, and as they should now be taught, all the branches of his calling; had he been allowed to work on the various ornamental parts, the graceful sweeps of the mouldings, the delicate carvings or still more delicate marquetry, what pride would he not have taken in developing the design, and in so carrying it out as to make of his work a beautiful and artistic whole? So employed, his ambition would be roused, his faculties would be alive and in full play, and his work, from becoming a toil, would be a source of pleasure and delight.

Aside from the demoralizing effect (for we maintain that whatever does not serve to elevate a man tends to depress him) of ever running in the same groove, as a matter of economy it would be better to give him a thorough knowledge of all the branches of his calling, — a knowledge so thorough that he could work as well in one department as in another. Ruskin, however visionary in many things, is practical enough to see this; and he lays great

stress on it in one of his lectures, in which he cites the observation of Sir Thomas Deane, the architect, who told him he had found, that, by giving the workmen employed on the new museum at Oxford an opportunity to vary the designs in carving, he had so interested their heads and hearts in what they were doing, that capitals of various designs could be executed cheaper than capitals of similar designs (the amount of hand-labor in each being the same) by about thirty per cent.

But our manufacturers are blind to this; and they make it both difficult and expensive to obtain at their hands an article that does not conform exactly to the dimensions of the regular products of the shop. To test this, let one ascertain the price of any class of goods he may select, and then give an order for a chair, a table, or a desk of the same pattern, with some slight variation in the design; and he will find the cost augmented to a degree that will force him to give up that which would suit him best, and take in its stead an article that has been reproduced a hundred times, and which will be kept on the market as long as it pays.

NOTES AND CLIPPINGS.

THE OLD BOSTON STATE HOUSE. — The wooden portico at the eastern end of the Old State House in Boston has been removed. It is to be hoped that this is the first step toward preserving rather than toward destroying the old building, as it will allow Devonshire Street to continue its course less interrupted by the unpleasant jog which, though still existing, is less awkward than before.

The land covered by the Old State House was devoted to public uses at an early date. Four years after the beginning of the settlement here, a market-place was established thereon. In the will of Robert Keayne, it was proposed to give money for the purpose of building a hall over the market-place. Drake says this legacy, whether paid in full or not, led to action; and in 1657 a model was considered, subscriptions authorized, and finally a town-hall was built of wood. This building of wood was destroyed by fire in 1711. The next year, a brick town-house was built on the same spot; but on Dec. 9, 1747, another fire took place, which destroyed all of the building except the walls. From the year 1742, the Old State House was for fifty years the seat of government. Here the provincial legislatures sat and organized revolution; here, also, the first sessions of the State legislature were held. Finally, on the 11th of January, 1798, the several branches of the General Court marched in procession from the Old State House to the New State House. The building as rebuilt in 1747 was substantially preserved in 1791; and there are good contemporary pictures of that date. At present, the main walls and the tower remain, and the two ends can easily be restored to their former appearance, so that the building would be substantially what it was a century ago.

BROOKLYN'S CITY BUILDING. — "The plans and specifications for the new municipal buildings in Brooklyn are placed for *public inspection* in the Common Council Chamber of the city," saith the *American Architect and Building News* of July 22, 1876. Query. Why does not the family physician submit his prescription for Tom or Jack to the whole family, inclusive of the cook and scullion, before having it filled, or administered to the patient Tom or Jack?

QUAKER.

TENNIS-COURT. — The Messrs. Shaw are erecting a building on Buckingham Street, Boston, for the Tennis Club of that city. The building measures about a hundred and five by thirty feet. At one end it is divided into two stories, containing the club-room, dressing-rooms, etc., whose inner windows open upon the court; the remainder of the building is occupied by the tennis-court, whose walls, except at the south ends where there are windows, are blank and hard finished. The floor is of asphalt. Light is obtained by a skylight in the roof.

THE JOHNS HOPKINS UNIVERSITY. — The new Johns Hopkins University buildings in Baltimore will probably be ready for use when the next term begins, in October. The two dwelling-houses which were purchased have been entirely remodelled, and somewhat enlarged. The whole has now a height of four stories, with a front of 66 feet, and a depth of 50 feet. All the fourth floor is occupied by a large apartment for drawing and surveying, which is well lighted by a large skylight. In the remaining stories of this building are 20 lecture-rooms. In the rear, connected with the front building by a corridor, an addition is being erected 67 x 24. On the ground floor is a large lecture-room 56 x 34, on the second the library, on the third the laboratory, and on the fourth the museum of natural history, — all of the same dimensions as the library. On the south-west corner is the tower, in which is the elevator and also a large ventilating shaft. Fronting on Ross Street, and in the extreme rear of the lot, the laboratory is situated, the architecture of which is the same as that of the other two buildings; it is 50 x 43 feet, with two stories, the first 16 feet, and the second 15 feet. The cost of improvement on the new structure will be about $50,000, of which $27,582 has been expended thus far. A learned and efficient corps of professors have been engaged for the lectures at the university. Prof. Huxley, of London, has accepted an invitation from the trustees to deliver a public address at the opening of the university in September.

ARTESIAN WELL. — At Prairie du Chien, Wis., an artesian well daily discharges 869,616 gallons of water. The well is only 960 feet deep, but has head enough to raise the water 900 feet above the ground.

ROYAL PROPERTY IN NEW YORK. — An exchange says, "Several of the most expensive buildings in Broadway, in Broad Street, and in Wall Street, are owned by the Empress Eugénie, who derives from them, every year, a rent of sixty-five thousand dollars. When the Duke of Nassau, one of the dispossessed German princes of 1866, was here in 1868, he purchased tenements in Allen Street, that to-day are nominally owned by German notaries public, and that yield him twelve per cent on the capital invested. The Grand Duke of Mecklenburg-Schwerin, Frederick Francis II., is the owner of lots and houses in Elm Street. Queen Victoria owns considerable real estate in Broadway, which stands in the name of an Englishman. The King of Sweden owns five hundred thousand dollars' worth of real estate in New York; and the Grand Duke Alexis owns a hotel in Broadway. King Bomba bought six houses in Greenwich Street, in 1852; and they are held by Italians, for his son Francis II."

TRADES-UNIONS. — The report of the British Consul at the port of New York states there are, at present, only one-third as many men enrolled on the Unions' list as in 1873. The building-trades have suffered most loss in numbers, having only three thousand now, while in 1873 there were ten thousand. In 1873 there were, all told, 48,180 members; whereas there are, at present, less than eighteen thousand.

CREMATION. — A citizen of Washington, Penn., has built a large stone house on a hill for the reception of dead bodies, and a furnace scientifically constructed, in which they are to be burned. He has given strict injunctions to his executors that his own body be burned in the furnace.

EVADING PAYMENT OF DUTIES. — It appears that there is an ingenious method adopted by the makers of funeral monuments, in order to evade the payments of duties on imported marble. When an order is received, the design adopted is forwarded to Italy, where the work of cutting is done very cheaply by the native stone-cutters. When finished, the monument is sent to this country, and is admitted free of duty, being regarded as a work of art.

THE RESTORATION OF ST. PAUL'S. — Once more the restoration of St. Paul's Cathedral is to be recommenced. It was stayed last by the outcry raised against a plan for "lighting up" the inside of the great church with bright paint, colored marbles, and other "Italian abominations." The severe English taste did not care to see a fine outline spoiled with florid detail. How the work is to be done, after all, no one knows: it is only known that a recommencement is to be made.

NEW VICTORIA DOCK. — The extension of the Victoria Dock, London, which is to add about ninety acres of water-area to the existing docks, is to be faced with granite walls several feet in thickness, in the laying of which about thirty thousand tons of Portland cement will be used. It will take about three years to complete the new dock, the estimated cost of which is placed at over five millions of dollars. When this addition is complete, the Victoria Dock will have an area of over three hundred acres, with a water-front of more than five miles. The present area of the docks on the Thames is 566 acres, whereas there are only 425 acres on the Mersey.

SAFETY FOR ELEVATORS. — This new invention, says the *Architect*, consists of wedges with teeth, suspended independently of the lift or cage by a cord connected to the balance-weight used as a counterpoise to the cage. In the absence of this weight, a drum is employed to receive the wedge cord. The wedges travel upon the guides with the cage, and are adjusted and remain always in the same relative position, so long as all is going right; and, in addition to the adjusted suspension, the wedges are kept ready for use by their thin ends being introduced between the guides and the sides of the cage. When a breakage of the lift chain or rope occurs through some unforeseen defect, the wedges immediately receive the cage, stopping it instantly in a gentle and easy manner, holding it in perfect safety.

CEMENT. — A good coating for outside brickwork is made by mixing twenty parts clean river-sand, one part quicklime, and sufficient linseed oil to form a thin paste. This is also useful as a cement for broken stone, as when dry it becomes exceedingly hard.

HARD-EARNED WAGES. — An artist employed in repairing the properties of an old church in Belgium, being refused payment in a lump, was asked for details, and sent in his bill as follows: —

Corrected the Ten Commandments	$5 12
Embellished Pontius Pilate, and put a ribbon in his bonnet	3 02
Put a new tail on the Rooster of St. Peter, and mended his comb	3 20
Replumed and gilded the left wing of the Guardian Angel	4 18
Washed the servant of the High Priest, and put carmine on his cheek	5 12
Renewed Heaven, adjusted two stars, and cleaned the moon	7 14
Re-animated the flames of Purgatory, and restored Souls	3 06
Revived the flames of Hell, put a new tail on the Devil, mended his left hoof, and did several jobs for the Damned	7 17
Re-bordering the robe of Herod, and re-adjusting his wig	4 00
Put new spotted dashes on the Son of Tobias, and dressing on his sack	2 00
Cleaned the ears of Balaam's Ass, and shod him	3 02
Put earrings in the ears of Sarah	2 04
Put a new stone in David's sling, enlarged the head of Goliath, and extended his legs	3 02
Decorated Noah's ark	3 00
Mended the shirt of the Prodigal Son, and cleaned his ears	4 00
	$59 11